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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,435

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Mattia De Dominicis

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EXAMINER

MACAULEY, SHERIDAN R

ART UNIT

PAPER NUMBER

1651

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/598,435	Applicant(s) DE DOMINICIS ET AL.	
	Examiner SHERIDAN R. MACAULEY	Art Unit 1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A response and arguments were received and entered on August 29, 2008. All evidence and arguments have been fully considered. Claims 1-10 are pending and examined on the merits.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1651

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Creely (US 3,686,120) in view of Scott et al. (3,095,307). Claim 1 recites an aerosol product comprising a sealed metal canister containing an aerosol composition comprising an oxidase enzyme and a substrate for said oxidase enzyme. Claim 2 recites an aerosol product according to in claim 1 wherein the aerosol composition additionally comprises catalase. Claim 3 recites an aerosol product according to claim 1 wherein the aerosol composition comprises >50 ppm of water. Claim 4 recites an aerosol product according to claim 1 wherein the oxidase enzyme is glucose oxidase and the substrate is D-glucose. Claim 5 recites a method of deoxygenating an aerosol product comprising the step of: supplying to an aerosol canister an oxidase enzyme and a substrate for the oxidase enzyme, an aerosol composition, and a propellant and thereafter, sealing the aerosol canister. Claim 6 recites a method according to claim 5 wherein the method further includes supplying a catalase to the aerosol canister. Claim 7 recites a method of inhibiting corrosion of a sealed and pressurized aerosol canister containing which method comprises the step of: providing an aerosol composition comprising an oxidase enzyme and a substrate for the oxidase enzyme as a corrosion inhibiting system to the said aerosol canister. Claim 8 recites a method according to claim 7 wherein the aerosol composition additionally comprises a catalase. Claim 9 recites an aerosol product according to claim 2 wherein the aerosol composition

Art Unit: 1651

comprises >50 ppm of water. Claim 10 recites an aerosol product according to claim 2 wherein the oxidase enzyme is glucose oxidase and the substrate is D-glucose.

5. Creely teaches an aerosol product comprising a sealed metal canister containing an aerosol composition comprising a corrosion inhibitor (abstract, col. 1, lines 50-52).

Creely teaches that the canister may comprise water (col. 2, lines 45-54). Creely teaches that the corrosion inhibitor is supplied to the aerosol canister with the aerosol composition and propellant, and then the canister is sealed (col. 3, lines 22-30).

Although Creely teaches the use of a corrosion inhibitor, the reference does not specifically teach the use of compositions comprising glucose oxidase, glucose, or catalase.

6. Scott teaches deoxygenating (i.e., corrosion-inhibiting) compositions comprising deoxygenators, such as a composition comprising glucose oxidase, glucose and catalase (col. 1, lines 25-35, col. 3, lines 2-8). Scott teaches that the deoxygenating activity requires water, such as between 7% to 50% moisture content (col. 3, lines 35-70).

7. At the time of the invention, a product comprising a corrosion inhibitor and method for making the product comprising nearly all of the claimed elements was known, as taught by Creely. It was further known that a composition comprising glucose oxidase, glucose and catalase could be used as corrosion inhibitors, as taught by Scott. One of ordinary skill in the art would have been motivated to combine these teachings by using the corrosion inhibitors taught by Scott with the product and method of Creely because Creely teaches the desirability for the addition of corrosion inhibitors

Art Unit: 1651

to the metal canister and Scott teaches that the corrosion inhibitors are useful for metal containers (Scott, col. 1, lines 25-35). Furthermore, the compositions of Creely and Scott were both known to be corrosion inhibitors and were known to be suitable for the same purpose; the substitution of equivalents known for the same purpose constitutes *prima facie* obviousness (MPEP 2144.06). One of ordinary skill in the art would have had a reasonable expectation of success in using the corrosion-inhibiting composition of Scott in the product and method of Creely because Scott teaches that the compositions are compatible with metal cans, and thus would be suitable for use with the canister of Creely. It would therefore have been obvious to combine the teachings discussed above to arrive at the claimed invention.

8. Thus, the claimed invention as a whole was *prima facie* obvious over the combined teachings of the prior art.

Response to Arguments

9. Applicant's arguments filed August 29, 2008 have been fully considered but they are not persuasive. Applicant argues that one of ordinary skill in the art would not have been motivated to combine the teachings of Creely and Scott because the composition of Creely comprises formaldehyde, which applicant states would not have been compatible with the enzymes of Scott, and because Scott teaches dry compositions that applicant states would not have been suitable for aerosol products.

10. In response to applicant's argument that one of ordinary skill in the art would not have been motivated to combine the teachings of Creely and Scott because the

Art Unit: 1651

composition of Creely comprises formaldehyde, which applicant states would not have been compatible with the enzymes of Scott, it is noted that Creely teaches the use of as little as 0.008% formaldehyde in the composition (i.e., 0.02% of a 40% solution, col. 2, lines 46-54). It is unclear whether such a low concentration of formaldehyde would have been detrimental to the enzyme activity and one of ordinary skill in the art could expect to achieve reasonable success with the use of such a low concentration. Further, Creely does not teach that the formaldehyde is essential to the composition, stating that the addition of formaldehyde to such a composition is desirable because it is an antimicrobial (col. 2, lines 23-24). One of ordinary skill in the art would have recognized that the addition of formaldehyde is not essential to the composition and could have omitted it in the course of routine experimentation in such a composition if it was found to be detrimental to the activity of the corrosion inhibiting agents of such a composition. The claimed invention is thus rendered obvious in view of the references and applicant's argument is therefore not found to be persuasive.

11. In response to applicant's argument that one of ordinary skill in the art would not have been motivated to combine the teachings of Creely and Scott because Scott teaches dry compositions that applicant states would not have been suitable for aerosol products, it is noted that Creely does not teach the necessity for the corrosion inhibitor to be in a solution and specifically states the use of a corrosion inhibitor in the vaporous stage (col. 2, lines 33-36). Scott teaches that the enzymes may be used as a solid component in a metal canister (col. 1, lines 35-45, col. 1, lines 70-72). Since there is no requirement for the corrosion inhibitor to be in the liquid stage of the solution in either

reference, one of ordinary skill in the art would have recognized that the substitution of one corrosion inhibitor for another could have been achieved with a reasonable expectation of success. Therefore, applicant's argument has not been found to be persuasive.

12. Thus, applicant's arguments have been fully considered, but they have not been found to be persuasive.

Conclusion

No claims are allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHERIDAN R. MACAULEY whose telephone number is

(571)270-3056. The examiner can normally be reached on Mon-Thurs, 7:30AM-5:00PM EST, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM
/Ruth A. Davis/
Primary Examiner, Art Unit 1651